

REMARKS

Claims 1-7 and 9-18 are pending in this application. Claims 19-21 are newly added claims. Reconsideration of the application is respectfully requested in view of the foregoing amendments and following remarks.

The Examiner rejected claims 1-18 under various grounds. Applicants disagree with the rejections given and the Examiner's characterizations. Applicants address these rejections below.

The Examiner also objected to the specification of the application. Applicants respectfully disagree with these objections and the Examiner's characterizations. Applicants address these objections below.

I. Objections to the Specification

In the Office action of November 17, 2004, (hereinafter "Office action"), page 2, the Examiner objects to the specification noting that it fails to provide proper antecedent basis for claims 1 and 15. Applicants respectfully disagree with the examiner's characterization, and believe that the content of the specification is proper, and sufficient to support the claims as written. Nonetheless, Applicants has amended the claims in question in an effort to expedite prosecution. They now use language directly from the specification, i.e. the language objected to, "state information" has been replaced with the phrase "at least one data record." *See*, Specification at page 8, line 16. Applicants respectfully requests withdrawal of the objection to the Specification.

IV. 35 USC § 112 Written Description Rejections

The Examiner rejects claim 11 on the grounds that it is misdescriptive and indefinite. [Office action, page 2.] Applicants respectfully disagree with this rejection. Specifically, claim 11 is rejected as the specification is said to refer to the screen rather than the interactive video entertainment as being typically overscanned. [Office action, p. 2.] To aid in clarity, and to expedite prosecution, the amended claim 11 now more specifically refers to the screen being overscanned.

Rejections under 35 USC § 102

Claims 1-3, 5-7, and 12-16

The examiner has rejected claims 1-3, 5-7, and 12-16 as being anticipated by Dunn et al., U.S. patent No. 5,721,829. (Hereinafter “Dunn”.) Reconsideration is respectfully requested.

Amended claim 1 recites a method of operating a video on demand system.

Specifically, amended claim 1 recites:

1. A method of presenting interactive video entertainment, comprising:
providing plural viewing channels;
providing plural transmission channels;
on certain of said viewing channels, providing television programs;
on at least one of said viewing channels, providing interactive video entertainment;
when switching away from an interactive video entertainment viewing channel transmitted on a first transmitting channel, storing at least one data record associated with said interactive video entertainment viewing channel; and
when thereafter switching back to said interactive video entertainment channel, restoring said data record and resuming transmission over a second transmission channel, wherein said transmission channels refer to frequencies used to relay programming to clients.

Applicants respectfully submit that the art cited by the Examiner fails to teach or suggest “when thereafter switching back to said interactive video entertainment channel, restoring said data record and resuming transmission over a second transmission channel, wherein said transmission channels refer to frequencies used to relay programming to clients.”

As modified language from claim 8 was moved into claim 1, Applicants will respectfully address the objections made by the Examiner to claim 8. Claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn in view of Wolf et al., U.S. patent no. 5,461,415. [Hereinafter “Wolf”.] The Examiner admits that Dunn fails to teach or suggest “resuming the program over a different transmission channel.” See Office action, page 8, line 8. However, the Examiner then asserts that the look-ahead stream in Wolf can be substituted for the VOD channel in Dunn. See, Office action, page 9, lines 9- 14. The assertion that the streams described in Wolf can be read on a transmission channel is incorrect.

Wolf describes a server with movies stored on disk including memory buffers for the temporary storage of movies for handling short pause requests. *See* Wolf, col. 3, lines 8-10. A look-ahead scheduler conserves resources by buffering portions of the same movie, so clients viewing the same movie may individually pause and resume. *Id.*, col. 3, lines 27-30. Further, the server can only output a limited number of streams from the video disks or look-aside buffers. *Id.*, col. 3, lines 43-50. Wolf discusses the physical capacity of the server processor to retrieve and send data packets containing movies. *Id.*, col. 1, lines 18-25. The number of movie streams that the server can send is based on how fast the server can put streams of sequential data packets on the network. This analysis results in the equations used to determine the maximum number and types of streams given the buffer size and processor's stream capacity (N_{MAX}). *Id.*, col. 3, line 22, through col. 6, line 47. Thus, the number of streams of data that a server can sends is not discussed as related to modulating plural programming streams onto different carrier frequencies. Thus, Wolf's discussion of streams has nothing to do with transmission channels.

A transmission channel is described in the Application as follows:

The transmission of these various forms of data from the head-end over the network 16 is straightforward. As is familiar to those skilled in the video arts, the analog video is commonly distributed on 6 MHz channels, beginning at 52 MHz and extending upwardly. The digital video can be encoded on a carrier for transmission within one of these conventional broadcast channels, or can be modulated at one or more other un-used frequencies. Statistical multiplexing is desirably employed to transmit plural channels of digitized video with reduced bandwidth. The HTML-based interactive services and the control data can be transmitted using a conventional protocol (e.g. TCP/IP) and modulated onto a suitable carrier frequency for distribution over the network. Or such data can be transmitted in the vertical blanking interval of analog video broadcasts, as is well known.

After modulation to appropriate distribution frequencies by modulators 34, the various signals from the head-end are combined by an RF combiner 36 for distribution over the network 16.

Page 4, lines 3 – 16.

Here a distinction should be drawn between two types of "channels." The first, termed a **"transmission channel,"** refers to an actual frequency channel (e.g. 52 - 58 MHz) that is used to relay programming from the head-end 12 to

the client terminal 14 over the network 16. The second, termed a “viewer channel,” refers to the moniker (e.g. MSNBC, CNN, GAME, CHAT, VIDEO, FAVORITES) by which a user distinguishes different programming. The mapping between viewer and transmission channels is determined by the system (e.g. by the terminal 14, the head-end 12, or a proxy server 24).

Page 6, lines 11-16 (Emphasis added).

A server’s capacity to output N_{MAX} streams of data is not even remotely related to the capacity and number of data channels that can be modulated onto a network. Thus, the Dunn - Wolf combination fails to teach or suggest “resuming said transmission over a second transmission channel different than the first, and automatically retuning the client terminal to present said resumed transmission over said viewing channel.” To further make the distinction, Applicants have amended claim 1 to indicate that “said transmission channels refer to frequencies used to relay programming to client terminals.”

For at least these reasons, claim 1 is in condition for allowance. Dependent claims 2-7 and 9-14 contain additional language that makes them separately patentable, and Applicants do not agree with the Office’s arguments against these dependent claims. However, since claims 2-7 and 9-14 depend from amended and allowable claim 1, they should be allowable for this reason. Such action is respectfully requested.

Claim 15

Amended Claim 15 is allowable for reasons similar to those given for the allowability of claim 1. This point will not otherwise be belabored here. Such action is respectfully requested.

Claim 16

Amended claim 16 recites a method of operating a video on demand system. Specifically, amended claim 16 recites:

16. A system for presenting video entertainment, the system comprising:
 - means for receiving a composite signal comprising television channels and at least one interactive video entertainment channel;
 - means for switching between said channels; means for displaying said channels;
 - and
 - means for storing state information associated with said interactive video entertainment channel;

wherein after switching back to said interactive video entertainment channel after switching away, *if less than a predetermined time has elapsed then* said state information is used to resume an earlier-commenced activity on said interactive video entertainment channel from a point of interruption. (*Emphasis added.*)

Applicants respectfully submit that the art cited by the Examiner, the Dunn reference, fails to teach or suggest the amended language “wherein after switching back to said interactive video entertainment channel after switching away, *if less than a predetermined time has elapsed then* said state information is used to resume an earlier-commenced activity on said interactive video entertainment channel from a point of interruption. For this reason, claim 16 is in condition for allowance. Such action is respectfully requested.

Claims 17-18

The Examiner asserted a rejection against claims 17 and 18 as anticipated by Daniels, U.S. Patent App. Pub. No. US 2002/0100044 A1.

Specifically, claim 17 recites:

17. A method of presenting interactive video entertainment comprising:
receiving a composite signal comprising plural viewing channels; on certain of said channels, providing broadcast programs;
on at least one of said channels, providing interactive video entertainment;
displaying a real time broadcast program, in response to a switching input received from a remote control;
compressing and saving the real time broadcast program in a *circular buffer* in response to receiving a delay input from the remote control; and
decompressing and displaying the recorded real time broadcast program from the *circular buffer* while simultaneously continuing to *compress and save* the real time broadcast program in the *circular buffer*, in response to receiving a resume input from the remote control. (*Emphasis added.*)

Applicants respectfully submit that the art cited by the Examiner fails to teach or suggest the amended claim language “compressing and saving the real time broadcast program in a circular buffer.” For at least this reason, claim 17 is in condition for allowance. The art also fails to teach or suggest the amended claim language “decompressing and displaying the recorded real time broadcast program from the circular buffer.” For this reason as well, claim 17 is in condition for allowance. Dependent claim 18 contains additional language that makes it separately patentable, and Applicants do not agree with the Office’s argument against this

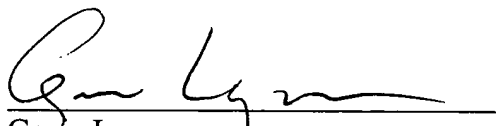
dependent claim. However, since claim 18 depends from allowable claim 17, it should be allowable for at least this reason.

CONCLUSION

The claims in their present form should now be allowable. Such action is respectfully requested.

Respectfully submitted,

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